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=> s 213488-11-0/rn
L1            1 213488-11-0/RN

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L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   213488-11-0  REGISTRY
ED   Entered STN:  29 Oct 1998
CN   1-Butanesulfonic acid, 4,4'-dithiobis[3-amino-, disodium salt (9CI)  (CA
     INDEX NAME)
MF   C8 H20 N2 O6 S4 . 2 Na
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL
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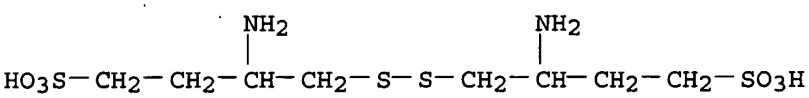

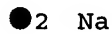

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              3 REFERENCES IN FILE CA (1907 TO DATE)
              3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                     2.40       2.61

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FILE COVERS 1907 - 21 Feb 2007  VOL 146 ISS 9
FILE LAST UPDATED: 19 Feb 2007  (20070219/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L2            3 L1

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L2 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:119917 HCAPLUS
DOCUMENT NUMBER: 142:218961
TITLE: Antihypertensive derivatives of 4,4'-dithiobis(3-aminobutane-1-sulfonate)
INVENTOR(S): Roques, Bernard P.; Inguimbert, Nicolas; Fournie Zaluski, Marie Claude; Corvol, Marie Therese M.; Llorens Cortes, Catherine
PATENT ASSIGNEE(S): Institut National de la Sante et de la Recherche Medicale INSERM, Fr.
SOURCE: Fr. Demande, 23 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2858617	A1	20050211	FR 2003-9700	20030806
CA 2533432	A1	20050217	CA 2004-2533432	20040806
WO 2005014535	A1	20050217	WO 2004-FR2106	20040806
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EP 1651596	A1	20060503	EP 2004-786279	20040806
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JP 2007501204	T	20070125	JP 2006-522380	20040806
US 2006205695	A1	20060914	US 2006-567362	20060206
PRIORITY APPLN. INFO.:			FR 2003-9700 A	20030806
			WO 2004-FR2106 W	20040806

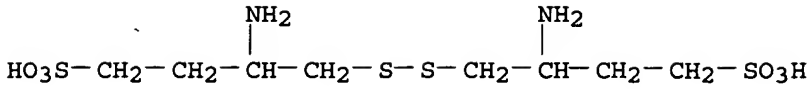
OTHER SOURCE(S): MARPAT 142:218961

AB Antihypertensive derivs. of 4',4'-dithiobis(3-aminobutane-1-sulfonate) H2NC(R1)(R3)CH(R2)SSCH(R2)C(R1)(R3)NH2 [R1 = sulfonate- or phosphonate- or carboxylate-substituted alkyl, substituted alkenyl, substituted alkynyl, substituted Ph, substituted benzyl, substituted cycloalkyl, substituted cycloalkylmethyl; R2 = H, substituted alkyl, substituted alkenyl, substituted alkynyl; R3 = H, alkyl; etc.; e.g., 4,4'-dithiobis[(2,2-dimethylpropyl)-3-aminobutane-1-sulfonate]] are described and their use in pharmaceutical formulations for the treatment of hypertension is claimed.

IT 213488-11-0P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antihypertensive derivs. of 4,4'-dithiobis(3-aminobutane-1-sulfonate))

RN 213488-11-0 HCAPLUS

CN 1-Butanesulfonic acid, 4,4'-dithiobis[3-amino-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

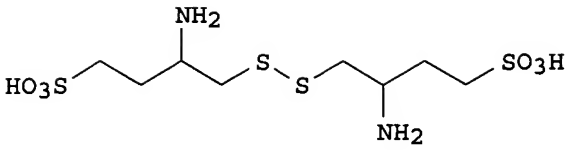
L2 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:60460 HCAPLUS
DOCUMENT NUMBER: 140:128054
TITLE: Preparation of 4,4'-dithiobis-(3-aminobutane-1-sulfonates) and compositions containing them for treating hypertension
INVENTOR(S): Fournie-Zaluski, Marie-Claude; Llorens-Cortes, Catherine; Roques, Bernard P.
PATENT ASSIGNEE(S): Institut National de la Sante et de la Recherche Medicale (Inserm), Fr.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007441	A2	20040122	WO 2003-FR2242	20030716
WO 2004007441	A3	20040408		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2842522	A1	20040123	FR 2002-8977	20020716
FR 2842522	B1	20041015		
FR 2852597	A1	20040924	FR 2003-3425	20030320
AU 2003271811	A1	20040202	AU 2003-271811	20030716
EP 1525188	A2	20050427	EP 2003-753648	20030716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006135602	A1	20060622	US 2005-521171	20050921

PRIORITY APPLN. INFO.:

FR 2002-8977	A	20020716
FR 2003-3425	A	20030320
WO 2003-FR2242	W	20030716

GI



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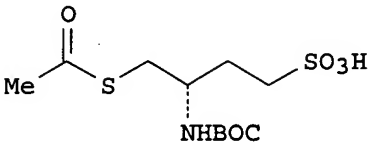


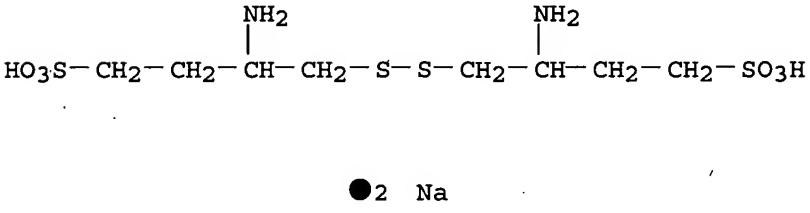
III

AB The invention is directed to the preparation of 4,4'-dithiobis-(3-aminobutane-1-sulfonates) as well as their pharmaceutical acceptable salts as antihypertensive agents. For example, the (S, S) stereoisomer of I•2Na•2HCl (II) was prepared in 6 steps from L-homoserine via dimerization of III•Na in the presence of EtOH/H2O/I2. II showed a blood pressure reduction of 3680 Pa in 4.5 h after oral administration to rats. Thus, I, their related compds. and formulations are useful for treatment of hypertension and indirectly- or directly-linked illnesses.

IT 213488-11-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antihypertensive agent; preparation of 4,4'-dithiobis-(3-aminobutane-1-sulfonates) as antihypertensive agents)

RN 213488-11-0 HCAPLUS

CN 1-Butanesulfonic acid, 4,4'-dithiobis[3-amino-, disodium salt (9CI) (CA INDEX NAME)



L2 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:505738 HCAPLUS
DOCUMENT NUMBER: 129:254345
TITLE: β-Amino-thiols Inhibit the Zinc Metallopeptidase Activity of Tetanus Toxin Light Chain
AUTHOR(S): Martin, Loiec; Cornille, Fabrice; Coric, Pascale; Roques, Bernard P.; Fournie-Zaluski, Marie-Claude
CORPORATE SOURCE: Departement de Pharmacochimie Moleculaire et Structurale, UFR des Sciences Pharmaceutiques et Biologiques, Paris, 75270, Fr.
SOURCE: Journal of Medicinal Chemistry (1998), 41(18), 3450-3460
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

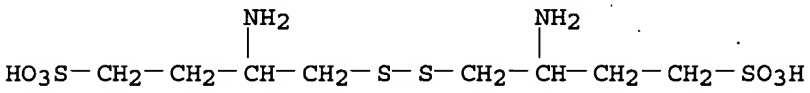
OTHER SOURCE(S): CASREACT 129:254345

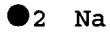
AB Tetanus neurotoxin is a 150-kDa protein produced by Clostridium tetani, which causes the lethal spastic paralytic syndromes of tetanus by blocking inhibitory neurotransmitter release at central synapses. The toxin light chain (50 kDa) has a zinc endopeptidase activity specific for synaptobrevin, an essential component of the neuroexocytosis apparatus Previous unsuccessful attempts to block the proteolytic activity of this neurotoxin with well-known inhibitors of other zinc proteases led the authors to study the design of specific inhibitors as a possible drug therapy to prevent the progressive evolution of tetanus following infection. Starting from the synaptobrevin sequence at the level of the cleavage site by tetanus neurotoxin (Gln76-Phe77), a thiol analog of glutamine demonstrated inhibitory activities in the millimolar range. A structure-activity relation performed with this compound led the authors to determine the requirement for the correct positioning of the thiol group, the primary amino group, and a carboxamide or sulfonamide group on the side chain. This resulted in the design of a β-amino-(4-sulfamoylphenyl)glycine-thiol, the first significantly efficient inhibitor of tetanus neurotoxin with a Ki value of 35 μM.

IT 213488-11-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(β-amino-thiols inhibit zinc metallopeptidase activity of tetanus toxin light chain)

RN 213488-11-0 HCAPLUS

CN 1-Butanesulfonic acid, 4,4'-dithiobis[3-amino-, disodium salt (9CI) (CA INDEX NAME)





REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

WEST Search History

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DATE: Wednesday, February 21, 2007

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☐	L3	l1 and l2	37
☐	L2	$dithiobis$.CLM.	88
☐	L1	sulfonic acid or sulfonic acid ester or sulfonate or sulfonic acid salt or solvate of sulfonic acid.CLM.	64239

END OF SEARCH HISTORY